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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,397	03/24/2004	Jean Francois Laithier	003301-129	3345

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EXAMINER

HALPERN, MARK

ART UNIT PAPER NUMBER

1731

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,397

Applicant(s)

LAITHIER ET AL.

Examiner

Mark Halpern

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/17/04 & 3/24/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1) Claims 1-2, 11-12, are rejected under 35 U.S.C. 102(b) as being anticipated by Costello (3,688,336).

Claim 1: Costello discloses a doctor's blade for engagement with a surface of a cylinder, as shown in Figure 1b (col. 3, lines 33-39). The blade is made of steel 12 and is equipped with a wear resistant structure 34 at contact with the surface. The wear resistant structure 34 is composed of chromium oxide (col. 3, lines 58-63), which is a ceramic material.

Claim 2: since there are no laminations disclosed, the wear resistant structure is a single-phase ceramic material structure.

Claim 11: the ceramic wear resistant layer is applied by plasma method, which is a type of thermal spraying (col. 4, lines 5-11).

Claim 12: the thickness of the blade is 0.635 mm to 1.27 mm (col. 3, line 63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 3-5, 13-14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Costello (3,688,336).

Claim 3: the wear resistant structure 34 is composed of chromium oxide (col. 3, lines 58-63). It would have been obvious to one skilled in the art at the time the invention was made that the wear resistant structure contain at least 75 % of chromium oxide.

Claims 4-5: Costello is applied as above for claim 1; Costello discloses the wear resistant structure at its thickest to be 0.38 mm (col. 4, lines 12-17), however it would have been obvious to one skilled in the art at the time the invention was made that the thickness of the wear resistant structure be within the range of 0.1 mm to 0.33 mm in order to reduce cost of the wear resistant structure.

Claims 13-14: it would have been obvious that the steel blade have a width of 50 mm to 150 mm.

3) Claims 6-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Costello in view of Blackwell (5,727,468).

Claims 6-8: Costello fails to disclose a bond coating between the steel and the ceramic layer. Blackwell discloses that the ceramic layer is applied to a nickel/chromium intermediate layer in order to provide a stronger bonding between the steel and the ceramic layer. It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Costello and Blackwell, because such a combination would prolong the life of the blade.

Claims 9-10: a prebevel and angle are disclosed in Figure 2 of Blackwell.

4) Claims 15-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwell (5,727,468) in view of Costello.

Claims 15, 19, 22-24: Blackwell discloses a doctor blade comprising a steel blade coated with a ceramic material, aluminum oxide and a small percentage of titanium dioxide. The coating is done by thermal spraying. The ceramic layer is applied to a nickel/chromium intermediate layer in order to provide a stronger bonding between the steel and the ceramic layer. Blackwell fails to disclose the ceramic component being chromium oxide. Costello discloses the ceramic component for wear resistance being chromium oxide. It would have been obvious to one skilled in the art at the time the invention was made to replace the aluminum oxide of Blackwell with the chromium oxide of Costello, they both provide wear resistance, and have the same or similar application in doctor's blade.

Claim 16: since there are no laminations disclosed, the wear resistant structure is a single-phase ceramic material structure.

Claims 17-18: since the titanium oxide component is of a small percentage (Blackwell, col. 5, lines 10-15), it would have been obvious the titanium oxide percentage be less than 15 %.

Claims 20-21: Costello discloses the wear resistant structure at its thickest to be 0.38 mm (col. 4, lines 12-17), however it would have been obvious to one skilled in the art at the time the invention was made that the thickness of the wear resistant structure be within the range of 0.1 mm to 0.33 mm in order to reduce cost of the wear resistant structure.

Claims 25-26: a prebevel and angle are disclosed in Figure 2 of Blackwell.

Claim 27: the thickness of the blade is 0.635 mm to 1.27 mm (Costello, col. 3, line 63).

Claims 28-29: it would have been obvious that the steel blade have a width of 50 mm to 150 mm.

Conclusion

5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Mark Halpern
Primary Examiner
Art Unit 1731